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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,329

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Michael John Hammond

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EXAMINER

NGUYEN, THONG Q

ART UNIT

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2872

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,329	Applicant(s) HAMMOND ET AL.	
	Examiner Thong Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-14, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 12-14, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on 8/29/08. It is noted that in the amendment, applicant has made changes to the abstract, the drawings, the specification and the claims.
2. Regarding to the claims, applicant has amended claims 1, 3-10 and 12-14; canceled claim 15 and added two new dependent claims, i.e., claims 16-17, into the application. Note that claim 11 was canceled in the amendment of 3/17/06.

Drawings

3. The replacement sheet contained corrected figure 1 was received on 8/29/08. The replacement sheet is approved by the examiner.
4. The objections to the drawings as set forth in the previous Office action have been overcome by the amendments to the drawings and the specification as provided in the amendment of 8/29/08.

Specification

5. The lengthy specification which was amended by the amendment of 8/29/08 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
6. A substitute specification without the claims is required pursuant to 37 CFR 1.125(a) because the requested changes as provided in the amendments of 3/17/2006

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and 8/29/2008 renders it difficult to consider or to arrange the papers for printing/copying.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Rejections - 35 USC § 112

7. The rejections of claims 1-10 and 12-15 under 35 U.S.C. 112, second paragraph, as set forth in the previous Office action have been overcome by the amendments to claims 1, 3-10, 12-14 and the cancellation of claim 15.

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-8, 10, 12-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller (U.S. Patent No. 4,025,785, of record).

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Mueller discloses an autofocus system for a stereomicroscope. The autofocus system as described in columns 2-4 and shown in the single figure comprises the following features: a) an illuminating system comprises a light source (15), a condenser lens (16), a stop (17) disposed around the optical axis of the illuminating light path for limiting the spatial extend of the illuminating light wherein the centroid of the illumination is on the optical axis of the illuminating light path; a collimating lens (18) and a mirror (19) for reflecting illuminating light onto the top focal plane of an objective (1); b) a common objective lens (1) for focusing illuminating light onto an object (4); c) a focus and imaging system comprises a set of objective lenses (2, 3); dihedral mirrors or beamsplitters (20, 21); eyepiece lenses (7, 8); guiding mirrors (24, 25); blades (26, 27); lenses (30, 31); and d) a detecting system comprises detectors (32, 33) and control system (34-35, 38-43) for detecting the signals provided by the detectors (32, 33) for controlling the movement of the stereomicroscope with respect to the object to adjust the focusing process. It is noted that the difference in size of the images caused by an out-of-focus position of the object with respect to the stereomicroscope will provide an observer and/or the detecting system the information related to the separation of the two images and the distance between the object with respect to the stereomicroscope.

Regarding to the feature related to the detector array, such feature is disclosed by Mueller when he discloses the use of two detectors (32, 33) which constitutes a single imaging system for the entire stereomicroscope. Regarding to the

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feature related to the successively repeating stages, such feature is inherently from the apparatus provided by Muller because the process of adjusting the in-focus of the object is made by a series of detecting the signals and moving the microscope with respect to the object in order to bring from an out-of-focus stage of the object to an in-focus stage of the object. Regarding to the feature related to an observation system, such feature is disclosed by Mueller as can be seen in the observation system comprises a pair of objective lenses (2, 3) and eyepiece lenses (7, 8).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (of record) in view of Goto (U.S. Patent No. 5,477,303)

The microscope as provided by Mueller meets all limitations of the microscope as recited in claim 17 except the use of a selective optics to divert reflected light from the object to either the imaging system or the second imaging system.

However, the use of a selective optics for diverting the reflected light to either the imaging system or the second imaging system as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in page 11, lines 10-16. Such a

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non criticality is also claimed as can be seen in claim 13 which claims a beam splitter for diverting reflected light from an object to both the imaging systems. Further, the use of a beam splitter or a retractable mirror for diverting light from an object to either a first imaging system or a second imaging system is known to one skilled in the art as can be seen in the device provided by Goto. See column 16, lines 26-30. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to modify the microscope as provided by Mueller by using a retractable mirror in place of a beam splitter as suggested by Goto for the purpose of selectively diverting light from an object to either a first or a second imaging system.

Allowable Subject Matter

12. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

The method of automatically focusing a microscope having a light source, an aperture disposed on the light path from the light source, an objective lens and an imaging system as recited in the dependent claim 9 is patentable with respect to the prior art, in particular, the U.S. Patent No. 4,025,785 and 4,620,089 by the limitations related to the dihedral mirror for splitting the image pupil into the at least two images formed on different sections of an imaging means within an imaging system. Such use

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of a dihedral mirror is not disclosed in the microscope provided by the mentioned Patents.

Response to Arguments

14. Regarding to the rejection of claims 1-10 and 12-15, now applied to claims 1-8, 10, 12-14 and 16, under 35 USC 102(b) over the art of Mueller, applicant's arguments as provided in the amendment of 8/29/08, pages 10-11, have been fully considered but they are not persuasive for the following reasons.

First, applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Second, applicant has argued that the art of Mueller does not disclose that the reflected light is splitted into the two images; the examiner respectfully disagrees with the applicant and respectfully invited the applicant to review the art of Mueller. In particular, the objective lens (1) acts as an optics for splitting light reflected from a spot (17a) of an object (4) to an imaging system having a first imaging system (32, 33) and a second observation system (7-10, 13-14). Applicant should note that the claims 1-8, 10, 12-14 and 16 have not recited any specific limitation(s) related to the component(s) used to split the reflected light. Regarding to the feature recited in claim 14, the optics including the objective lens (1), the pair of objective lens (2, 3), the beam splitting mirrors (29, 21), the reflecting mirrors (24, 25), and the optical elements disposed on the

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downstream of the mirrors (24, 25) constitute the first imaging system which is clearly includes a pair of the beamsplitter or dihedral mirror.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thong Nguyen/

Primary Examiner, Art Unit 2872